

MDA STEM Outreach Program Overview: New Mexico Science and Engineering Fair

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New Mexico Science and Engineering Fair Mission

- Increase STEM awareness and promote academic excellence among NM students (grades 6-12).
- Recognize outstanding achievement by students and teachers in STEM-H education.
- Promote all NM universities.
- Encourage inquisitive students to explore their environment in a systematic, logical manner.
- Stimulate students' interest in science and technology while simultaneously promoting the development of the life skills of communication, decision making, evaluation of alternative solutions, and critical thinking.
 - Recognize students for their contributions of knowledge and hard work in science fair.
 - Encourage their enthusiasm and excitement as students involve themselves in their projects.
- Challenge science educators to explain their own fields of expertise so as to advise students appropriately.
 - In addition, the successful development and implementation of science fairs is enhanced by strong community/institution relationships.
 - The acquisition of financial support, judges, and other volunteer help is dependent upon various community entities.



New Mexico Science and Engineering Fair

- International, non-profit, tax exempt organization.
- 63 years serving NM students
- NMSEF accepts top research projects from the six regional science fairs in the state. Hosted by four universities and two high schools
 - o Four Corners - Grants, NM
 - o Northeast - Las Vegas, NM
 - o Northwest/Central - Albuquerque, NM
 - o San Juan - Farmington, NM
 - o Southeast - Portales, NM
 - o Southwest - Las Cruces, NM



New Mexico Science and Engineering Fair

- Awards are presented to top exhibits in 19 disciplines.
- Approximately 1500 students participate across the state (grades 6-12)
- 300 students and 200 judges attend State competition at NM Tech.
- 16 Regional Grand Prizes and 6 State Grand Prizes are awarded to the top projects.
 - An all-expenses paid trip to compete at the International Science and Engineering Fair (ISEF).
 - ISEF world's largest international pre-college science competition.
 - Over 1,700 high school students from more than 75 countries, regions and territories showcase their independent research as they compete for approximately \$4 million in prizes.
 - Each year our students excel in this academic competition. This past year 22 NM students earned 6 special awards and 6 grand awards.



Southwestern New Mexico Regional Science and Engineering Fair

- New Mexico State University hosted the annual Southwestern New Mexico Regional Science and Engineering Fair on March 6-7, 2015.
- Over 100 students arrived to compete this year from: Hidalgo County, Sierra County, Grant County, Luna County, Otero County and Doña Ana County



Student Involvement

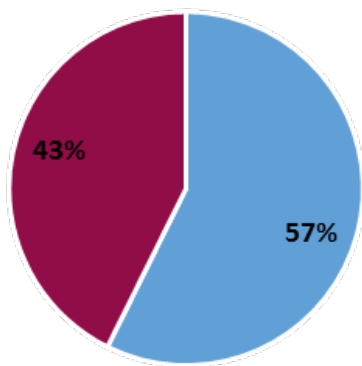
- **Junior Level**
(6th-8th grade):
75 students
- **Senior Level**
(9th-12th grade):
49 students





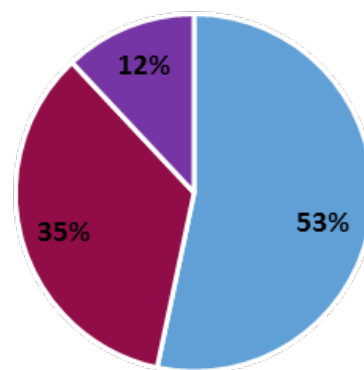
Junior Level: Student Demographics

**Junior Category
Gender Representation**



■ Female ■ Male

**Junior Category
Grade Distribution**



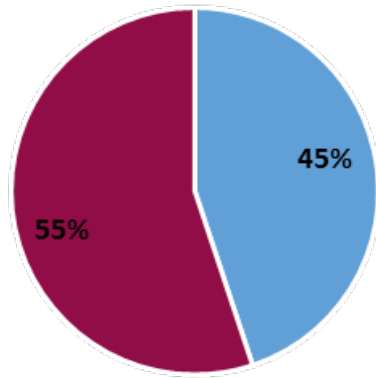
■ 6th Grade ■ 7th Grade ■ 8th Grade





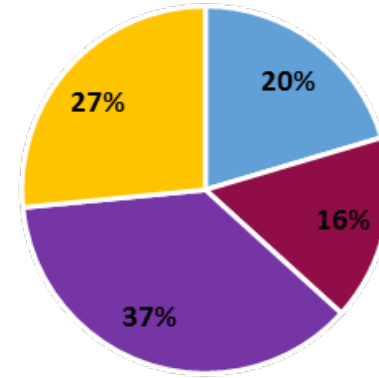
Senior Level: Student Demographics

**Senior Category
Gender Representation**



■ Male ■ Female

**Senior Category
Grade Distribution**



■ 9th Grade ■ 10th Grade ■ 11th Grade ■ 12th Grade





2015 Participating Schools

Junior Level:

- Camino Middle School
- Cottonwood Middle School
- Deming Intermediate School
- Red Mountain Middle School
- Desert Springs Christian Academy
- Holy Cross Catholic School
- Sierra Middle School
- Sunland Park Middle School

Senior Level:

- Arrowhead Early College High School
- Deming High School
- Las Cruces High School
- Mayfield High School
- Quemado High School
- Santa Teresa High School
- Silver High School
- Socorro High School



Competition Categories

Life Sciences:

- Behavioral & Social Sciences
- Botany: Plant Sciences
- Cellular & Molecular Biology
- Medicine & Health Sciences
- Microbiology
- Physics and Astronomy
- Zoology: Animal Science

Physical Sciences:

- Chemistry
- Computer Science
- Earth & Planetary Sciences
- Energy & Transportation Engineering
- Environmental Sciences
- Mathematical Sciences



Local Special Awards

- American Nuclear Society/ Trinity Section
- Gamma Sigma Delta, NMSU Chapter
- New Mexico Biotechnology and BioMedical Association (NMBio)
- New Mexico Department of Agriculture, Chemistry Division
- New Mexico Geological Society, INC.
- TRAX International, LLC
- SWNM Regional Science and Engineering Fair Awards
- NMSU Klipsch School of Electrical and Computer Engineering





Science Fair Sponsors

- TRAX International, LLC, White Sands Missile Range, NM
- New Mexico Geological Society
- New Mexico Biotechnology and Biomedical Association
- New Mexico Department of Agriculture





Thank
you!